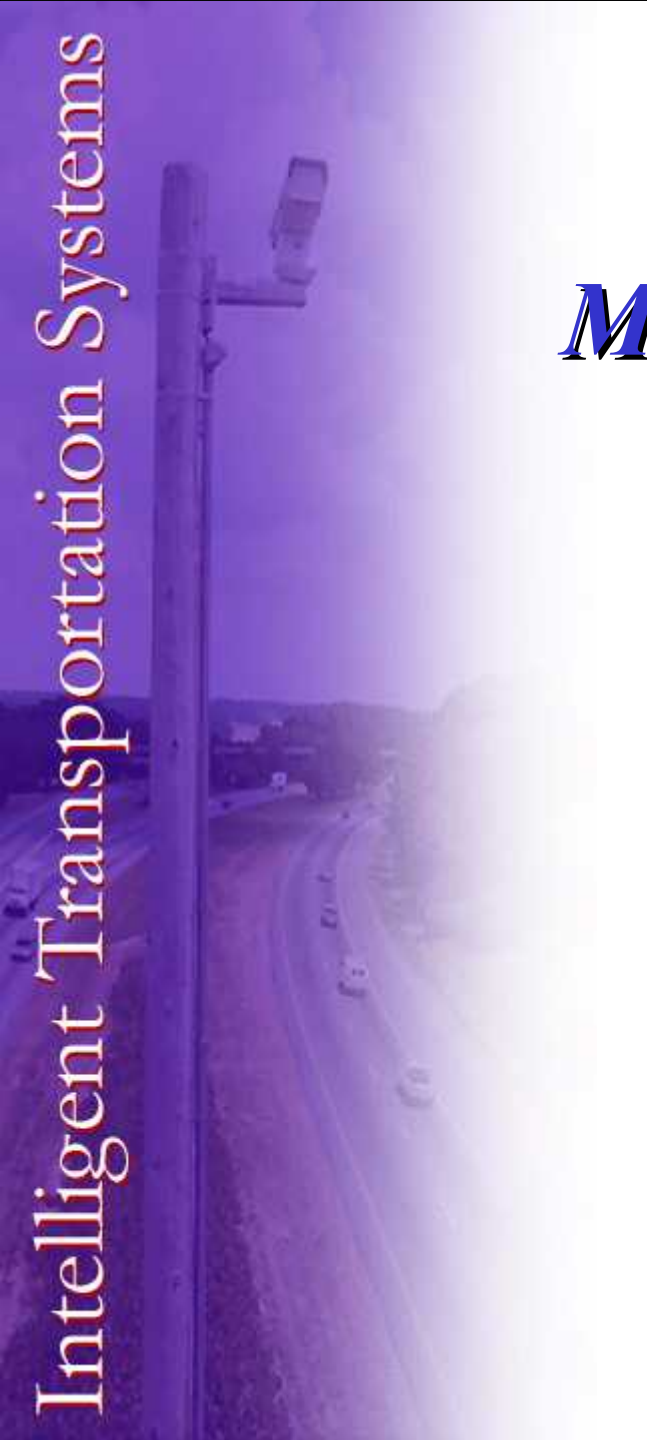

ITS Operations & Maintenance Manual:

Progress Report

David L. Jones, PE

PBS&J

on behalf of ITS Operations Unit

NCDOT

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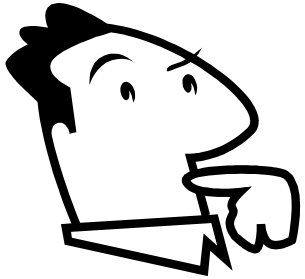
ITS O&M Manual

- What is it?

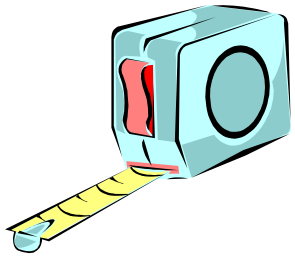


Well, it's an "Operations and Maintenance Manual"!!!

Seriously, it's the culmination of a long standing effort to document NC's ITS Operations procedures.

ITS O&M Manual

- Goals
  - Improve standardization of practices
  - Document what people are doing
  - Document acceptable levels of performance
  - Improve recovery of costs
  - Give smaller Divisional operations a "roadmap"
  - Help folks be proactive, not reactive



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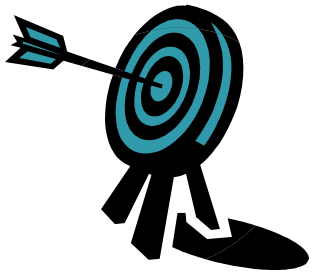
- Target audience



  - Division Traffic Engrs and staff
  - Division Ops Engrs and staff
  - IMAP and IM staff
  - TMC Engrs and staff
  - Maintenance Engrs and staff

ITS O&M Manual

- Careful, there's lots going on!
  - NC SmartLink RFP
  - Statewide TOC
  - ITS Performance Measures
  - IT/Web initiatives (virtualagility)
  - WebCapture
  - Feasibility Study for ITS Devices

(ITS Planning)

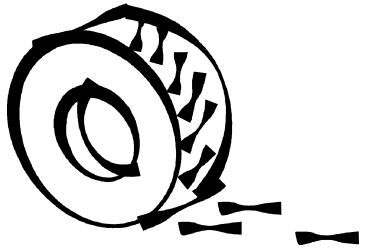
Intelligent Transportation Systems

ITS O&M Manual

- Challenges
  - How to make relevant to TMC's and rural Divisions?
  - Regional and Division differences in..
    - Staffing, Procedures, Equipment, Traffic
  - Satisfy both "techies" and "techno-phobes"
  - Web docs must be ADA compliant!

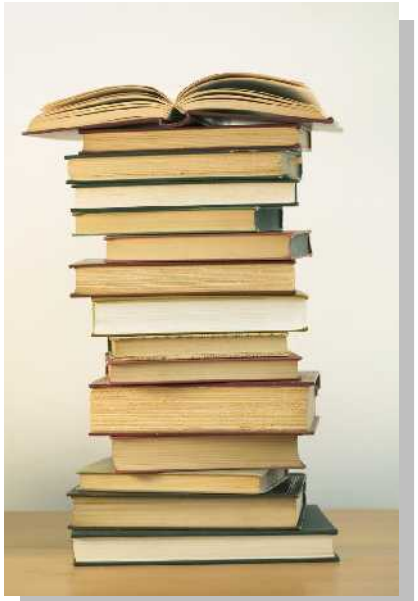
ITS O&M Manual

- Don't re-invent the wheel!



  - Signals O&M Practices Report
  - DOT Construction Manual
  - Manufacturer's documents
  - Purchasing Manual
  - Device special provisions
  - Others ???

ITS O&M Manual



- Some documents consulted:
  - FHWA Freeway and Operations Management Handbook; Handbook for TMC Operations
  - SunGuide (FL) – various docs
  - OOCEA/D5 RTMC (Orlando)
  - TransGuide materials (San Antonio)
  - NaviGAtor Case Study
  - NJ/NY ITS Operations Support Plan
  - MRTMC Ops Manual
  - Existing outline prepared by ITS Ops staff

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ITS O&M Manual

- Process
  - Kick-off Meeting
  - "Magical Mystery Tour"
  - Best Practices Research
  - Draft Manual
  - Business Process Analysis
  - Final Manual
  - Training
  - Configuration Management

ITS O&M Manual

- Structure
  - Major Sections for:
    - Division Operations
    - TMC Operations
    - Maintenance
    - Incident Management/IMAP
    - Coordination and Communication
  - Appendices for:
    - Division-specific information
    - Manufacturer-specific information
  - Links for:
    - Internal navigation
    - Stuff on Web and internal (like TEPPL)

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ITS O&M Manual

- Structure (cont.)
  - Division Operations and Planning includes:
    - ITS Planning
    - ITS Staffing Considerations
    - ITS Training
    - ITS Facility Maintenance
    - ITS Operations Management
    - Contract Management
    - Purchasing
    - Budgeting and Funding
    - Construction Inspection & Project Acceptance

ITS O&M Manual

- Structure (cont.)
  - TMC Operations includes:
    - Work Scheduling
    - Daily Operations
    - ITS Device Operations
    - Communications & Coordination
    - Facilities Management

ITS O&M Manual

- Structure (cont.)
  - Maintenance includes, for each device:
    - Maintenance Scheduling
    - PM, RM & EM Checklists/Procedures
    - Emergency Restoration Supplies
    - Manufacturer's Recommendations
    - Troubleshooting Tips

ITS O&M Manual

- Structure (cont.)
  - Appendix includes:
    - Contact lists
    - Official use policies
    - Sample contracts
    - Media and MOU agreements
    - Manufacturer contacts and web sites
    - Links to reference docs (or the docs them
    - Revision history

HOME » OPERATIONS » ITS UNIT » ITS Strategic Deployment: Contacts

ITS Strategic Deployment: Contacts

ITS Contacts

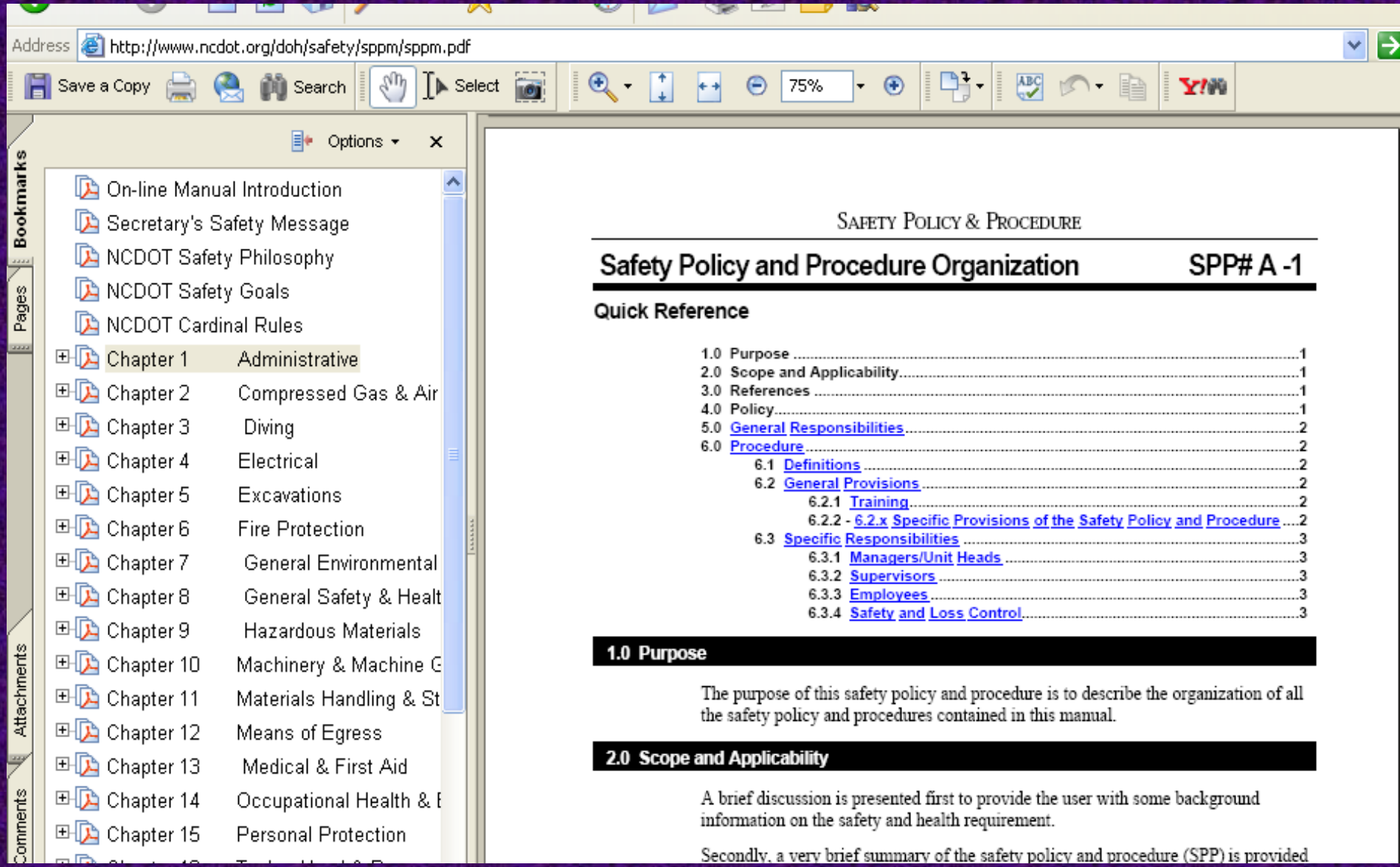
G.G.(Buddy) Murr, Jr., PE	ITS Engineer (over Planning and Design)	919-733-5574

Planning

Cheryl Evans	ITS Development Project Engineer	919-733-1735
Lee Neal	ITS Development Project Design Engineer	919-733-5506

ITS O&M Manual

- What will it look like?
  - A set of hot-linked PDF's
  - Compartmentalized so you can chop off what you want
  - Will not require 24/7/365 Web access


Address
http://www.ncdot.org/doh/safety/sppm/sppm.pdf
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Search
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Attachments
Comments
Options
On-line Manual Introduction
Secretary's Safety Message
NCDOT Safety Philosophy
NCDOT Safety Goals
NCDOT Cardinal Rules
Chapter 1 Administrative
Chapter 2 Compressed Gas & Air
Chapter 3 Diving
Chapter 4 Electrical
Chapter 5 Excavations
Chapter 6 Fire Protection
Chapter 7 General Environmental
Chapter 8 General Safety & Healt
Chapter 9 Hazardous Materials
Chapter 10 Machinery & Machine G
Chapter 11 Materials Handling & St
Chapter 12 Means of Egress
Chapter 13 Medical & First Aid
Chapter 14 Occupational Health & E
Chapter 15 Personal Protection
SAFETY POLICY & PROCEDURE
Safety Policy and Procedure Organization SPP# A -1
Quick Reference
1.0 Purpose 1
2.0 Scope and Applicability....1
3.0 References 1
4.0 Policy....1
5.0 General Responsibilities....2
6.0 Procedure....2
6.1 Definitions....2
6.2 General Provisions....2
6.2.1 Training....2
6.2.2 - 6.2.x Specific Provisions of the Safety Policy and Procedure 2
6.3 Specific Responsibilities....3
6.3.1 Managers/Unit Heads....3
6.3.2 Supervisors....3
6.3.3 Employees....3
6.3.4 Safety and Loss Control....3
1.0 Purpose
The purpose of this safety policy and procedure is to describe the organization of all the safety policy and procedures contained in this manual.
2.0 Scope and Applicability
A brief discussion is presented first to provide the user with some background information on the safety and health requirement.
Secondly, a very brief summary of the safety policy and procedure (SPP) is provided

ITS O&M Manual

- Where are we? ~ 75% Draft
- What we still need…
  - Complete knowledge base of existing field systems
  - More troubleshooting tips
  - Information on TMC equipment
  - Assistance and coordination from State IT and DOT webmaster

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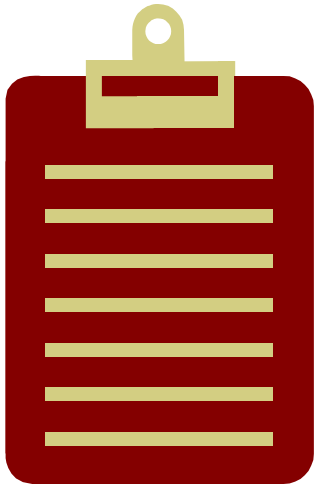
ITS O&M Manual

- How can this effort help you?
  - Justify positions or proper classification of staff
  - Provide "one-stop shopping" for documents
    - Templates
    - Checklists
    - Contacts
    - Procurement/Purchasing
  - Provide path for growth
  - Training tool



ITS O&M Manual

- Parting thoughts….
  - Discussion List/Bulletin Board for Maintenance folks?
  - PDA-based Manual?
  - Manual access from devices themselves

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Questions?

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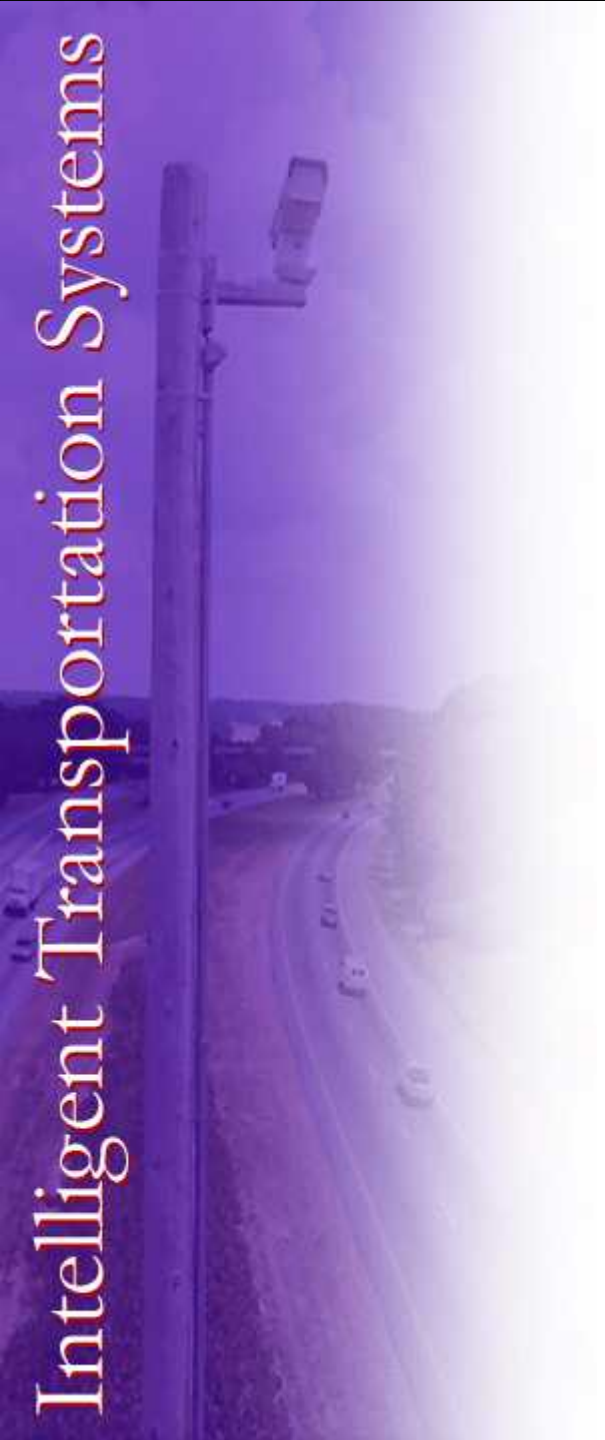
ITS O&M Manual

- A newer challenge:

  Incident Management and
  IMAP Manual

IM Roundtable Talking Points

- What is the worst type of incident you have to deal with, in terms of frequency?
- What is the worst type of incident you have had to deal with, in terms of severity?
- Should we be focusing on the most severe type of incidents or the most frequent?
- What are your 3 biggest challenges in clearing incidents? (Can be internal or external to DOT)
- Have you employed any unique or unorthodox tactic that has been effective in clearing incidents?



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